

**DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection**

N211526161

FACILITY: CREATIVE FOAM CORP		SRN / ID: N2115
LOCATION: 300 N ALLOY DR, FENTON		DISTRICT: Lansing
CITY: FENTON		COUNTY: GENESEE
CONTACT: Mike Zayan , Quality Manager		ACTIVITY DATE: 07/30/2014
STAFF: Daniel McGeen	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Partial Compliance Evaluation (PCE) activities, conducted as part of a Full Compliance Evaluation (FCE): 1.) scheduled inspection, and 2.) review of records and operational logs.		
RESOLVED COMPLAINTS:		

On 7/30/2014, the Department of Environmental Quality (DEQ), Air Quality Division, conducted a scheduled inspection of Creative Foam's plant at 300 North Alloy Drive, in Fenton, and reviewed environmental recordkeeping. These were Partial Compliance Evaluation (PCE) activities, conducted as part of a Full Compliance Evaluation (FCE). Synthetic minor sources, such as a this facility, must undergo a FCE once every four years, at a minimum, under the Environmental Protection Agency's Compliance Monitoring Strategy, which the AQD complies with.

Environmental contacts:

Mike Zayan, Quality Manager; 810-936-2164; mlzayan@creativefoam.com

Bob Sippola, Program Manager; 810-629-4149, ext. 2252; resippola@creativefoam.com

Facility description:

Creative Foam makes products which are used by the auto industry to prevent rattles and squeaks in their vehicles. These products are primarily pre-expanded dense foams with an adhesive backing. Typical uses for these products are liners for small storage areas on vehicle dashboards.

Regulatory overview:

This facility has a synthetic minor permit, also known as an opt-out permit, which contains limits to restrict the facility's Potential to Emit (PTE) for both criteria pollutants and HAPs to less than major source levels. Therefore, this opts the facility out of the Renewable Operating Permit (ROP) program. The opt-out permit, Permit to Install (PTI) No. 159-95B, limits VOC emissions to 38.0 tons per year (TPY), and limits HAP emissions to 9 TPY for a single HAP, and 22.5 TPY for aggregate HAPs.

Emission units:

Emission unit	Emission unit description	Permit number or exemption rule	Operating status
Profile cutter, deck slicers	Tools for cutting foam, which exhaust into in-plant environment	Rule 285(l)(vi)(B)	Compliance
EU-Adhesive Line	A coating line consisting of a paper let off, an adhesive roll coater, hot air dryer/vent system exhausting to outside air, foam lay-up table, nip rollers, and a blank/rewind station	PTI No. 159-95B	Compliance
Tool room	Various tools, including wood cutting process, controlled by mat/panel filter system which exhausts to in-plant environment	Rule 285(l)(vi)(B)	Compliance
Small machine area	Various small machining operations exhausting to in-plant environment	Rule 285(l)(vi)(B)	Compliance
Die-cutting operations	Multiple die cutting operations, exhausting to in-plant environment	Rule 285(l)(vi)(B)	Compliance
2 hot melt adhesive stations	Stations where 2 different types of hot melt adhesive are applied to surfaces	Rule 287(i)	Compliance

Fee status:

This facility is not considered fee-subject, for the following reasons. Because it is not a major source for criteria pollutants, it is not classified as Category I. Additionally, because it is not a major source for Hazardous Air Pollutants (HAPs), and is not subject to federal New Source Performance Standards, it is not classified as Category II. Finally, because it is not subject to federal Maximum Achievable Control Technology standards, it is not classified as Category III. The facility reports each year through the Michigan Air Emissions Reporting System (MAERS).

Location:

The facility is at the north end of an industrial park. It is surrounded by industries to the south, east, and west. To the north are a freeway ramp, and small businesses. The closest residences are about 1,500 feet to the east and northeast.

Recent history:

There appear to be no recent changes related to air quality.

Arrival:

This was an announced inspection, the date and time having been arranged in advance, in order to avoid making a wasted trip. Although Creative Foam has a parking lot off of Alloy Drive, the most convenient place to park is in their parking lot off of Fenway Drive. That is adjacent to their main office.

I arrived at 9:25 AM. I could not detect any odors, nor see any visible emissions, from the plant. Weather conditions were partly cloudy, humid, and 59 degrees F. I met with Mr. Mike Zayan, Quality Manager, and Mr. Bob Sippola, Program Manager. I provided them with a copy of the DEQ brochure, "Environmental Inspections: Rights and Responsibilities," per AQD procedure.

It was explained to me that Creative Foam does not actually produce foam. They apply water-based adhesives to foam materials which are manufactured elsewhere. We then began a walk through inspection of the facility.

PCE activity no. 1: inspection:

Receiving department:

The start of the production process is when rolls and buns of foam enter the receiving department. The foam products they receive have done practically all of their off-gassing before they ever reach Creative Foam, I was informed. They will not accept foam from a supplier before it has had a certain number of days to off-gas.

Profile cutter and deck slicers; Rule 285(l)(vi)(B):

A profile cutter and deck slicers cut roll stock and buns of foam to the desired size and thickness. I did not see any visible emissions from these processes. Scrap foam pieces are recycled. Rule 285(l)(vi)(B) exempts processes for cutting and/or machining certain materials, which exhaust into the general in-plant environment. The rule does not specifically mention foam, but does mention rubber and plastics. I consider foam to be a material which could qualify for this exemption.

EU-Adhesive Line; PTI No. 159-95B:

The company uses low emitting materials, wherever possible. They use an alcohol-based cleaner, and for deep cleaning, they use an orange-based cleaner. They collect and recycle batteries, and collect used oil. Waste glue is collected in a closed loop system, along with some water and traces of cleaner. It is stored in 350 gallon totes, and when 5 totes are collected, it is picked up by a company who mixes it with wood ash, to solidify it, as a solid waste. The transfer of the waste glue is done indoors, to avoid the possibility of any release to the outside environment, in the event of a spill.

The two adhesives currently used by the company are water-based. They are the same ones which were used in 2012, and Material Safety Data Sheets (MSDS) are attached, for reference. Their adhesives are identified by ADN codes, AD191 and AD197. Both contain small amounts of HAPs. An error in the 2012 inspection report stated that only one contained HAPs.

AD191 contains 0.4% vinyl acetate, and 0.16% diethylene glycol monobutyl ether, both of which are HAPs as well as VOCs. Total HAP content is 0.0481 lbs/gallon of adhesive. Total VOC content is 0.096 lbs/gallon of adhesive.

AD197 contains vinyl acetate at 0.4%. Total HAP content is 0.034 lbs/gal, and total VOC content is 0.034 lbs/gal. .

They have no plans to use solvent-based adhesives in the future. A potential customer would have to specifically require such adhesives before they would consider using them.

Each adhesive is pumped directly from a 55 gallon container, through a dedicated line, to the roll coater. Traditionally, the containers have been cardboard 55 gallon drums, but they are now plastic. One of the last 2 cardboard containers was currently supplying the roll coater, which was operating. Adhesive AD191 was being applied to a silicone coated release liner. The liner was then applied to a 100% polyester rolled foam material. A nip roller applied pressure to the product to ensure a good bond was obtained, and the edge of the product was trimmed. A customer would remove the liner, to apply the finished product. The adhesive line generally operates Monday through Thursday. It rarely runs on Fridays, when they focus on assembly.

Their natural gas-fired oven, where the adhesives are cured, is their only emission source directed to the outside air, other than their heating, ventilation, and cooling system. Their are 2 zones, and the second oven has a higher temperature. Current data was as follows:

Parameter:	Zone 1	Zone 2
Actual temperature; deg. F:	198	229
Set point, degrees F:	200	230

Their best indicator for how the oven is working, they explained, is the appearance of the cured coating on the adhesive liner.

They also apply adhesive to rolled foam via adhesive transfer tapes (about 30 types), I was informed.

Tool room; Rule 285(I)(vi)(B):

They have a small tool room, where various tools exhaust indoors. A wood cutting process exhausts to a mat or panel filter system, which then exhausts into the in-plant environment. There were no visible emissions from the panel filter.

Small machine area; Rule 285(I)(vi)(B):

Across from the tool room was a small machine area, where small machining operations exhausted into the in-plant environment. I did not see any visible emissions.

Die-cutting operations; Rule 285(I)(vi)(B):

There were a number of die-cutting operations, where presses cut foam backed with adhesive to shape. There are two types of cutting: full cutting, where the foam and adhesive liner are cut, and kiss cutting, where foam is cut, but not the liner. The presses are exhausted into the in-plant environment. I did not see any visible emissions.

2 hot melt adhesive stations; Rule 287(l):

There are 2 stations, each of which applies a different hot melt adhesive to a substrate. Hot melt adhesives are considered exempt under Rule 287(l).

PCE activity no. 2: recordkeeping:

I was provided with a copy of their recordkeeping (attached for reference), in which they track their throughput and emissions. These records cover the years 2011 through 2013. For December 2013, their 12-month rolling average tons of VOCs and HAPs were both 0.0020 tons. The highest values from 2011 through 2013 were for the months of December 2012, and January 2013, when 12-month rolling average VOCs and HAPs were both 0.0028 tons. The permitted limit for total VOCs is 38.0 tons per year (TPY), over a 12-month rolling time period, while the HAPs limit is less than 9.0 TPY for single HAPs, over a 12-month rolling time period, and less than 22.5 TPY, for aggregate HAPs. Their air emissions were far below the major source thresholds for VOCs and for HAPs.

Currently, their average monthly VOC emissions are: 0.08 tons/month x 2000 lbs/ton = 160 lbs/month.

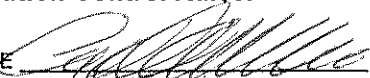
The MAERS report which the company submitted for the 2013 operating year shows that VOC emissions, as calculated by MAERS, were 1,383.16 lbs, or 0.69 tons, for 2013. That is well below the VOC limit of 38.0 TPY and the HAP limits of 9.0 TPY for a single HAP and 22.5 TPY for aggregate HAPs.

I left the site at approximately 11:30 AM. I could not detect any odors, nor see any visible emissions from the plant. Weather conditions were partly cloudy, 60 degrees, and calm.

Conclusion:

The facility appeared to be clean, organized, and well-maintained. Facility staff were very knowledgeable and professional. I could not find any instances of noncompliance, nor any areas of concern. The facility appeared to be in compliance with its air use permit, PTI No. 159-95B, and with the Michigan Air Pollution Control Rules.

NAME



DATE

9/16/2014

SUPERVISOR

